A chip-on-glass (COG) assembly, in which the electrodes of the semiconductor chips (3) are held in a direct connection with the corresponding electrodes on the substrate glass circuit board (1), comprising a layer (5) of a connecting material for bonding and semiconductor chip with the (3) the connecting substrate board (1), which material can attain reduced stress concentration at the boundaries between binder layer (5) and the chip (3) and between the binder layer (5) and the glass board (1) even at higher less deformation, adhesive strength, bringing about such as warping, of the resulting bonded assembly even in the case of using a thinner substrate glass board, and provides a superior bonding strength and excellent the said electroconductive performance, wherein connecting material comprises, on the one hand, adhesive component (6) containing a thermosetting resin and, on the other hand, electroconductive particles (7) a characteristic feature that a and elongation percentage at 25 °C, after having cured, is at least 5 %.